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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,437	06/23/2003	Paul C. Coffin	100202247-1	7975

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EXAMINER
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FOX, CHARLES A

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,437

Applicant(s)

COFFIN ET AL.

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-14 and 17-27 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030623.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 recites the limitation "said gear rack on said carriage" in line 4.

There is insufficient antecedent basis for this limitation in the claim. It appears this claim should depend from claim 17 and not claim 12, but as that is not clear the claim can not be treated on the merits at this time. Clarification is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,11 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Grant et al. Regarding claim 1 Grant et al. US 4,891,720 discloses a cartridge handling device comprising:

a lift assembly (14) having at least one guide track (46,48) aligned along a first displacement path in a media storage area;

a carriage (38) having a transfer shaft (34) aligned along a second transfer path;

said transfer shaft operatively associated with said guide track for moving said carriage along said guide track;

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a picker (42) slidably connected to said carriage and moving therewith through said second and first displacement paths.

In regards to claim 2 Grant et al. further disclose the transfer shaft extends between two guide tracks.

Regarding claim 3 grant et al. also disclose the guide tracks as having a bearing race along their entire length (see figures 3A and 3B) with said transfer shafts being slidably mounted to said bearing race.

Regarding claim 11 Grant et al. also discloses that the first and second transfer paths are orthogonal.

Regarding claims 25-27 Grant discloses a media storage system comprising:

- a first guide means for defining a first displacement path;

- a second guide means for defining a second displacement path

- said second guide means rotatable engaging said first guide means for movement of said second guide means along said first displacement path;

- cartridge engaging means for transporting a data cartridge;

- said engaging means moving with said second guide means along said first displacement path;

- said engaging means further movable along said second path defined by said second guides;

- a drive means for moving said second guide means through said first displacement path;

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a drive means for moving said engaging means along said second displacement path.

Claims 1-4,8,12-14,19 rejected under 35 U.S.C. 102(b) as being anticipated by Asakawa et al. In regards to claims 1-3 Asakawa et al. US 5,064,337 discloses a handling apparatus for a media storage area comprising:

a lift assembly having at least one guide track (21a,21b) aligned along a first displacement path in a media storage area;

a carriage (1) having a transfer shaft (17) aligned along a second transfer path;

said transfer shaft operatively associated with said guide track for moving said carriage along said guide track;

a picker (5) connected to said carriage and moving therewith through said second and first displacement paths;

a bearing race (22a,22b) extending along the length of each guide track with said transfer shaft slidably connected to said race.

Regarding claim 4 Asakawa et al. also disclose a drive motor (19) mounted on said carriage and operatively associated with said guide tracks for moving the carriage in said first path.

Regarding claim 8 Asakawa et al. also disclose the carriage as having a platform (1b) mounted in spaced apart relation to said transfer shaft, said platform supporting said picker on said carriage.

Regarding claim 12 Asakawa et al. disclose a handling device in a media storage system comprising:

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a lift assembly having at least one guide track (21a,21b) aligned along a first displacement path in a media storage area;

a carriage (1) having a transfer shaft (17) aligned along a second transfer path;

said transfer shaft operatively associated with said guide track for moving said carriage along said guide track;

a picker (5) connected to said carriage and moving therewith through said second and first displacement paths;

a first drive motor (19) mounted on said carriage and operatively associated with said guide tracks for moving the carriage in said first path;

a second drive motor (7) operatively associated with said carriage for moving said picker along the second transfer path.

Regarding claims 13 and 14 Asakawa et al. further disclose at least one gear rack (21a,21b) and at least one pinion (16a,16b) all operative connected to said first motor for moving the lift along said first transfer path.

In regards to claim 19 Asakawa et al. also disclose the lift assembly as having at least one bearing race (22a,22b) aligned along said first displacement path and that said carriage has at least one bearing member (23a,23b) slidably engaging said race.

Regarding claims 23 and 24 Asakawa et al. also disclose the carriage as having a platform (1b) mounted in spaced apart relation to said transfer shaft, said platform supporting said picker on said carriage, said platform further having

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a guide bearing (3a) mounted to said picker and engaging said platform via a bearing race (3b).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa et al. as applied to claim 12 above, and further in view of Allen. Asakawa et al. teach the limitations of claim 12 as above, they do not teach a cable mechanism for storing cable. Allen US 5,726,866 teaches a device (102) with a shiftable platform having extendable and retractable cables (C), wherein said cable remain attached to said platform when extended and retract into a tray when said platform is not extended. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Asakawa et al. with an extendable cable as well as a place to store the cable when needed in order to control moving part of the device at all times and to protect the control lines at the same time.

Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa et al. as applied to claims 1 and 12 above, and further in view of Grant et al. Asakawa et al. teach the limitations of claims 1 and 12 as above they further teach a guide bearing for running along the guide rails.

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Asakawa et al. do not teach a wheel mounted in said guide bearing. Grant et al. teach a set of guide races(46,48) which have a carriage slidably mounted thereon via a series of guide wheels (60,70). It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the guide ways taught by Asakawa et al. with wheels as taught by Grant et al. in order to allow the guide to move easier by rolling, thereby allowing for a smaller drive motor to move the device.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa et al. as applied to claims 1 and 12 above, and further in view of Thatcher. Asakawa et al. teach the limitations of claims 1 and 12 as above, they do not teach a second drive motor connected to the carriage. Thatcher teaches a manipulator comprising:

- a pair of guide rails (4), including a first rack and pinion drive for moving a carriage (28) in a first displacement path;

- a second drive means located on manipulator for moving said manipulator in a second displacement path along said carriage;

- wherein said second drive means comprises a second drive motor and pinion cooperating with a rack mounted on said carriage. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Asakawa et al. with the drives as taught by Thatcher in order to provide a device that can move a manipulator to the proper location and control its actions in a precise manner.



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Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa et al. as applied to claim 1 above, and further in view of Shapiro. Asakawa et al. teaches the limitations of claim 1 as above, they do not teach pivotal bearings. Shapiro US 6,041,988 teaches using a pivotal bearing (16) to maintain the bearing in contact with a guide as a carriage is move drelative to said guide. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Asakawa et al. with a biased bearing as taught by Shapiro in order to allow the guide bearing to contact the guide at all times.

***Allowable Subject Matter***

Claims 6,7,15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The zero pitch treading on the transfer shaft working in conjunction with a pinion to move the picker is not taught or suggested by the closest prior art of Asakawa et al.

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is: Hug et al. 1992, Yanagisawa 1995, Ostwald et al. 2001, Schinzel 2001, White 2001, Bolognia et al. 2002 and Dimitri et al. 2004.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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